



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE

United States Patent and Trademark Office

Address: COMMISSIONER FOR PATENTS

P.O. Box 1450

Alexandria, Virginia 22313-1450

www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/540,440	04/19/2006	Wolfgang Theimer	915-006.086	2537
4955 7590 08/04/2009 WARE FRESSOLA VAN DER SLUYS & ADOLPHSON, LLP BRADFORD GREEN, BUILDING 5 755 MAIN STREET, P O BOX 224 MONROE, CT 06468				
EXAMINER				
HOANG, SON T				
ART UNIT		PAPER NUMBER		
2165				
MAIL DATE		DELIVERY MODE		
08/04/2009		PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

**Office Action Summary****Application No.**

10/540,440

**Applicant(s)**

THEIMER ET AL.

**Examiner**

SON T. HOANG

**Art Unit**

2165

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 03 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 01 June 2009.  
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-5, 9, 10, 12-19, 21-32, 35, 37, 38, 40 and 41 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1-5, 9, 10, 12-19, 21-32, 35, 37, 38, 40 and 41 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.  
10) ☒ The drawing(s) filed on 20 June 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Final Drawing Review (PTO-948)  
3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_  
5) ☐ Notice of Informal Patent Application  
6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Response to Amendment*

1. This communication is in response to the amendment filed on June 01, 2009.

**Claims 6-8, 11, 20, 33-34, 36, and 39** are canceled.

**Claims 1, 9-10, 18-19, 35, and 38** are amended.

**Claims 40-41** are newly added.

**Claims 1-5, 9-10, 12-19, 21-32, 35, 37-38, and 40-41** are pending.

### *Response to Arguments*

2. Objection to **claim 35** is withdrawn in view of Applicant's amendment.
3. 35 U.S.C. 112, first and second paragraph, rejections of **claims 18-19, 21-26, 32, and 38** are withdrawn in view of Applicant's amendment.
4. Applicant's arguments with respect to the 35 U.S.C. 103(a) rejections of **claims 1-5, 9-10, 12-19, 21-32, 35, and 37-38** have been considered but are moot in view of the new ground of rejections presented hereon.
5. Rejections for newly added dependent **claims 40-41** are also presented hereon.

### *Claim Rejections - 35 USC § 103*

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

Art Unit: 2165

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. **Claims 1-5, 9, 12-13, 17, 27-31, 35, 37, and 41** are rejected under 35

U.S.C. 103(a) as being unpatentable over Nakamura et al. (*Pub. No. US 2004/0201740, filed on March 15, 2002; hereinafter Nakamura*) in view of Andrews et al. (*Pub. No. US 2003/0060979, filed on September 21, 2001; hereinafter Andrews*), and further in view of Brechner et al. (*Pat. No. US 6,741,996, filed on April 18, 2001; hereinafter Brechner*).

Regarding **claim 1**, Nakamura clearly shows and discloses a method ([Abstract]) comprising:

obtaining user provided information in consequence to any user operation on a mobile terminal device (*Image capture device, such as a digital camera or a digital video camera 23, captures original images, [0021]*);

obtaining context information associated with said user provided information, wherein said context information is related to at least one current condition of the mobile terminal device at the time of said any user operation and includes calendar information from an electronic calendar implemented at said mobile terminal device (*Image metadata is essentially non-picture information that is stored along with picture information in a file and can include information such as the date and time the picture was taken, whether a flash was used,*

Art Unit: 2165

*which camera model was used, camera settings such as zoom and exposure, location information such as GPS- derived data, and audio annotations, [0025]);*

*obtaining a first time information in accordance with said user provided information (In step S314 image metadata that is stored along with each image is extracted. Image metadata are preferably date events that identify a date and time for specific events, [0031]);*

*obtaining one or more calendar entries includes in said calendar information, wherein each calendar entry comprises a second time information with a start time and an end time (Each calendar in turn contains one or more events, each of which are preferably identified by an event title. Examples of event titles include birthdays for specific family members like "Dad's birthday" or "Nicholas's Birthday," vacation events that correspond to vacations at specific times of the year like "Summer break," and "Spring break", [0030]);*

*comparing said first time information with each of said second time information to identify matching calendar entries by assigning a membership function to each of said second time information (date events stored along with image as metadata are compared with dates corresponding to events specified in the calendar. Where an image meta data corresponds to more than one event on the calendar, and more than one meta data are available for the image, the other meta data are utilized to determine a storage location for that image, [0033]) and deriving a membership grade value from each of said membership functions in accordance with said first period of time (where two events are scheduled on the calendar for the same date, and the calendar schedules events by date and time,*

*the comparing step compares the time the image was recorded (meta data), if available, against the time of each of the calendar events on that date, and determines a location for the image accordingly, [0034]), wherein said membership function is a function in time, which rises from zero value at a predetermined moment in time before said start time of a respective calendar entry, and becomes zero value at a predefined moment in time after said end time of said respective calendar entry, wherein membership function defines an extended timeframe for each calendar entry (comparisons of taken pictures and calendar entries to determine a match with calendar entries, [0040]-[0051]);*

*obtaining meta-information from each matching calendar entry of said one or more obtained calendar entries (As shown in step S318, an affirmative response to this inquiry results in the creation of an album whose title is the title of the calendar event corresponding to the match, [0036]).*

Nakamura does not disclose assigning meta-information obtained from said context information and said membership grade value to said user provided information, said membership grade value defining a measure which allows to estimate a reliability of a timely relatedness for retrieval; storing said user provided information and said meta-information in a history storage in order to establish an information history functionality, and wherein said meta-information is employable for retrieval of said user provided information by matching request information of a retrieval request with said meta-information for selecting a user provided information assigned to said meta-information matched to said request information.

Art Unit: 2165

However, Andrews discloses:

assigning meta-information obtained from said context information and said membership grade value to said user provided information (*the data collection table 315C is a table organized as a series of columns and rows. Each row defines a record for a particular appointment. The columns include an appointment column 502A, an alarm lead time column 502B, a calendar event column 502C, a GPS departure location column 502D, a GPS arrival location 502E, an arrival time column 502F and a stress factor column 502G. Each entry under the appointment column 502A contains an appointment number by which the particular appointment for that record can be identified, [0042]*), said membership grade value defining a measure which allows to estimate a reliability of a timely relatedness for retrieval (*stress factor in Figure 5*); and

storing said user provided information and said meta-information in a history storage in order to establish an information history functionality (*Referring now to Figure 7, a summary view 315B of the history data is shown. In this view, the history data contained in the history data structure 315 has been sorted into two columns 702 and 704. Lead times and current GPS locations are contained in the history data structure among with other attributes, [0047]*).

It would have been obvious to an ordinary person skilled in the art at the time of the invention was made to incorporate the teachings of Andrews with the teachings of Nakamura for the purpose of notifying a user of an appointment by estimating a travel time for the user to travel from a current location of the wireless device to a appointment location ([Abstract] of Andrews).

Nakamura, as modified by Andrews, does not disclose wherein said meta-information is employable for retrieval of said user provided information by matching request information of a retrieval request with said meta-information for selecting a user provided information assigned to said meta-information matched to said request information.

However, Brechner discloses:

wherein said meta-information is employable for retrieval of said user provided information by matching request information of a retrieval request with said meta-information for selecting a user provided information assigned to said meta-information matched to said request information (*the user could also specifically identify digital photographs relating to beach scenes by searching for metadata that include the word "beach" within the meta data associated with each of the files included within the collection hierarchy stored in the user's content database*, [Column 11, Lines 11-23]).

It would have been obvious to an ordinary person skilled in the art at the time of the invention was made to incorporate the teachings of Brechner with the teachings of Nakamura, as modified by Andrews, for the purpose of automating the indexing of media content in a simplified hierarchical storage scheme and the automated assignment of keywords and other metadata to the media content to facilitate its retrieval ([Column 1, Lines 5-10] of Brechner).



Regarding **claim 2**, Brechner further discloses said assigning comprises:

extracting said meta-information from said context information (*as the content is being imported into database created by the Clip Organizer, it simultaneously indexed the contents by adding keywords or metadata based upon contextual information*, [Column 6, Lines 6-11]).

Regarding **claim 3**, Brechner further discloses said obtaining of said user provided information comprises:

receiving user input information being generated by user operation of any input means of said mobile terminal device and/or

receiving transaction information and/or communication information being received via any communication interface of said mobile terminal device (*accessing those media files can be done with computing devices in distributed computing environments that include remote processing devices linked through a communication network*, [Column 4, Lines 29-32]),

wherein said user input information and/or transaction information and/or said communication information represent said user provided information (*media files generated from digital cameras, web site image files, home video editing files, sound files, and other types of user media content are stored on a hard drive*, [Column 1, Lines 14-18]).

Regarding **claim 4**, Brechner further discloses said assigning of said meta-information to said user provided information comprises:

extracting labeling information and/or indexing information from said context information (*a user might store a digital photograph file "beach1.jpg" that was taken with an OLYMPUS™ digital camera on the beach during a vacation to Hawaii in 1999 in a folder having a path such as "C:/My Documents/My Photo/Digital Camera/Olympus/Vacations+Hawaii1999Beach1.jpg."* This path would be parsed by the Clip Organizer software to identify keywords for inclusion in the metadata for the file. These keywords would include: "My Documents," "My Photos," "Digital Camera," "Olympus," "Vacations," "Hawaii," and "1999.", [Column 10, Lines 47-57]);

assigning said labeling information and/or indexing information to said user provided information (*as the content is being imported into database created by the Clip Organizer, it simultaneously indexed the contents by adding keywords or metadata based upon contextual information*, [Column 6, Lines 6-11]); and

storing said labeling information and/or indexing information and said user provided information (*content is being imported into a database created by the Clip Organizer, metadata based on contextual information is also added to enable a user to find the personal content at a later time using a keyword search*, [Column 6, Lines 6-11]);

wherein said labeling information and/or indexing information is employed as said meta-information for establishing retrieval functionality of said user input

history (*The user could also specifically identify digital photographs relating to beach scenes by searching for metadata that include the word "beach" within the metadata associated with each of the files included within the collection hierarchy stored in the user's content database, [Column 11, Lines 11-23]*).

Regarding **claim 5**, Brechner further discloses said associating said context information with said user provided information comprises:

generating referencing information for at least a part of said user provided information (*each collection in the database is associated a full path that indicates the location on the hard drive of the collection, [Column 9, Lines 53-55]*);

storing said referencing information in a first storage area (*the original media file with full path address would serve as a reference in order to import that file into the database created by Clip Organizer, [Column 9, Lines 48-59]*);  
and

storing said part of said user provided information in a second storage area; wherein said referencing information comprises address information which allow to retrieve said part of user provided information from said second storage area (*Provision of this full path is important, because it sets up an import and indexing component and a browse import component, [Column 9, Lines 55-65]*).

Regarding **claim 9**, Andrews further discloses partitioning said user provided information into a plurality information parts, each information part relates to a maximum pre-defined period of time, each information part being matched separately (*the first lead time may define an alarm time six hours prior to the projected start time while a user is at home preparing for the appointment. A second lead time may be a lunchtime reminder with a lead time of two hours. A third lead time may be 15 minutes before the projected start time, [0031]*).

Regarding **claim 12**, Andrews further discloses each of said plurality of calendar entries being included in said calendar information is semantically structured and said obtaining of meta-information from each matching calendar entry (*Figure 5-6*) comprises:

obtaining of meta-information from each of said matching semantically structured calendar entry (*Once the alarm time is reached, processing continues to step 908 where the current GPS location and the appropriate calendar information (i.e., the user's current activity based on a calendar entry) are extracted, [0058]*).

Regarding **claim 13**, Brechner further discloses:

obtaining said user provided information including user provided audio information and in parallel additional user provided information, said user provided audio information being recorded and stored (*media files generated from digital cameras, web site image files, home video editing files, sound files,*

Art Unit: 2165

*and other types of user media content are stored on a hard drive, [Column 1, Lines 14-18]];*

obtaining said context information in parallel to said user provided audio information, said context information comprising user input information generated in consequence to user action against said mobile terminal device (*a user might store a digital photograph file "beach1.jpg" that was taken with an OLYMPUS™ digital camera on the beach during a vacation to Hawaii in 1999 in a folder having a path such as "C:/My Documents/My Photo/Digital Camera/Olympus/Vacations+Hawaii1999Beach1.jpg." This path would be parsed by the Clip Organizer software to identify keywords for inclusion in the metadata for the file. These keywords would include: "My Documents," "My Photos," "Digital Camera," "Olympus," "Vacations," "Hawaii," and "1999."*, [Column 10, Lines 47-57]); and

generating meta-information comprising information about said additional user provided information and said context information (*as the content is being imported into database created by the Clip Organizer, it simultaneously indexed the contents by adding keywords or metadata based upon contextual information, [Column 6, Lines 6-11]]).*

Regarding **claim 17**, Brechner further discloses said meta-information is displayed by assigning graphical elements to each information entry included in said meta-information and predicting said graphical elements illustrating the

Art Unit: 2165

content of the meta-information and showing associations defined in said meta-information (*Figure 10*).

Regarding **claim 27**, Brechner further discloses a method for retrieving user provided information being organized, comprising:

receiving a request for retrieving, said request comprising request information for instructing to retrieve certain user provided information (*If the user wants to search for keywords in the metadata associated with the media files, the user will enter the likely keywords in a text block 354*, [Column 15, Lines 37-44]);

comparing said request information with said meta-information being assigned to said user provided information which is provided by said information history functionality (*In this example, the user has entered the text "Vacation," indicating that any media file having that text string in its path and thus automatically included in the metadata for the file as a result of the automatic indexing of the media files will be located by the search*, [Column 15, Lines 37-44]);

retrieving said user provided information being assigned to said meta-information which matches said request information (*any media file that has the searched word "Vacation" in its metadata will be located by the search*, [Column 15, Lines 37-44]);

generating a response comprising said retrieved user provided information  
*(When the Search control is selected, a list of all media files meeting the desired criteria will be displayed to the user, [Column 15, Lines 53-55]); and*

transmitting said response *(the search results are displayed on the monitor, [Column 15, Lines 53-55] and Figure 1).*

Regarding **claim 28**, Brechner further discloses said retrieving of said user provided information comprises:

retrieving referencing information being associated with said user provided information to be retrieved, said referencing information comprising address information which addresses said part of user provided information being stored in a second storage area *(a user might store a digital photograph file "beach1.jpg" that was taken with an OLYMPUS™ digital camera on the beach during a vacation to Hawaii in 1999 in a folder having a path such as "C:/My Documents/My Photo/Digital Camera/Olympus/Vacations+Hawaii1999Beach1.jpg." This path would be parsed by the Clip Organizer software to identify keywords for inclusion in the metadata for the file. These keywords would include: "My Documents," "My Photos," "Digital Camera," "Olympus," "Vacations," "Hawaii," and "1999.", [Column 10, Lines 47-57]); and*

retrieving said part of user provided information from said second storage area *(The user could also specifically identify digital photographs relating to beach scenes by searching for metadata that include the word "beach" within the*

Art Unit: 2165

*metadata associated with each of the files included within the collection hierarchy stored in the user's content database, [Column 11, Lines 11-23]).*

Regarding **claim 29**, Andrews further discloses, wherein said retrieving of said user provided information comprises:

evaluating said user provided information being retrieved on the basis of said membership grade values obtained from calendar entries, said membership grade value defining a measure which allows to estimate a reliability for retrieval (*The particular appointment is identified in the appointment column 602A. The entries of the lead time column 602B are populated using the alarm lead time column 502B of the history data structure 315. Each entry of a projected lead time column 602C provides a lead time to be used for the next appointment. The projected lead time is calculated using a time difference value contained in the entries of a time difference column 602D, [0044]).*

Regarding **claim 30**, Brechner clearly shows and discloses a method for providing storage capacity for organizing user provided information being provided with meta-information (*Abstract*), comprising:

receiving a request to store at least a part of said user provided information (*Figure 11 shows an interface to organize selected media clips on command. This interface could be displayed on hand-held devices, pocket personal computing devices, [Column 4, Lines 23-29]), wherein said request comprises said part of said user provided information and referencing information (Figure 11, #324 & #326);*



storing said part of said user provided information and said referencing information such that said part of said user provided information is retrievable in conjunction with said referencing information (*a user might store a digital photograph file "beach1.jpg" that was taken with an OLYMPUS™ digital camera on the beach during a vacation to Hawaii in 1999 in a folder having a path such as "C:/My Documents/My Photo/Digital Camera / Olympus / Vacations+Hawaii1999Beach1.jpg." This path would be parsed by the Clip Organizer software to identify keywords for inclusion in the metadata for the file. These keywords would include: "My Documents," "My Photos," "Digital Camera," "Olympus," "Vacations," "Hawaii," and "1999."*, [Column 10, Lines 47-57]).

receiving a request for retrieving at least said part of said user provided information wherein said request comprises referencing information (*If the user wants to search for keywords in the metadata associated with the media files, the user will enter the likely keywords in a text block 354*, [Column 15, Lines 37-44]);

retrieving said part of said user provided information in accordance with said referencing information (*In this example, the user has entered the text "Vacation," indicating that any media file having that text string in its path and thus automatically included in the metadata for the file as a result of the automatic indexing of the media files will be located by the search*, [Column 15, Lines 37-44]); and

generating a response including said retrieved part of said user provided information (*When the Search control is selected, a list of all media files meeting the desired criteria will be displayed to the user*, [Colum 15, Lines 53-55]).

Regarding **claim 31**, Brechner clearly shows and discloses a computer readable storage medium embedded with a computer program comprising programming code for carrying out the operations of **claim 1** ([Column 4, Lines 12-17]).

Regarding **claim 35**, Nakamura clearly shows and discloses an apparatus (*Figure 1*) comprising:

a component for obtaining user provided information in consequence to any user operation on a mobile terminal device (*Image capture device, such as a digital camera or a digital video camera 23, captures original images*, [0021]);

a component for obtaining context information associated with said user provided information, wherein said context information is related to at least one current condition of the mobile terminal device at the time of said any user operation and includes calendar information from an electronic calendar implemented at said mobile terminal device (*Image metadata is essentially non-picture information that is stored along with picture information in a file and can include information such as the date and time the picture was taken, whether a flash was used, which camera model was used, camera settings such as zoom and exposure, location information such as GPS- derived data, and audio annotations*, [0025]);

Art Unit: 2165

a component for obtaining a first time information in accordance with said user provided information (*In step S314 image metadata that is stored along with each image is extracted. Image metadata are preferably date events that identify a date and time for specific events, [0031]*);

a component for obtaining one or more calendar entries includes in said calendar information, wherein each calendar entry comprises a second time information with a start time and an end time (*Each calendar in turn contains one or more events, each of which are preferably identified by an event title. Examples of event titles include birthdays for specific family members like "Dad's birthday" or "Nicholas's Birthday," vacation events that correspond to vacations at specific times of the year like "Summer break," and "Spring break", [0030]*);

a component for comparing said first time information with each of said second time information to identify matching calendar entries by assigning a membership function to each of said second time information (*date events stored along with image as metadata are compared with dates corresponding to events specified in the calendar. Where an image meta data corresponds to more than one event on the calendar, and more than one meta data are available for the image, the other meta data are utilized to determine a storage location for that image, [0033]*) and deriving a membership grade value from each of said membership functions in accordance with said first period of time (*where two events are scheduled on the calendar for the same date, and the calendar schedules events by date and time, the comparing step compares the time the image was recorded (meta data), if available, against the time of each of the*

*calendar events on that date, and determines a location for the image accordingly, [0034]), wherein said membership function is a function in time, which rises from zero value at a predetermined moment in time before said start time of a respective calendar entry, and becomes zero value at a predefined moment in time after said end time of said respective calendar entry, wherein membership function defines an extended timeframe for each calendar entry (comparisons of taken pictures and calendar entries to determine a match with calendar entries, [0040]-[0051]);*

*a component for obtaining meta-information from each matching calendar entry of said one or more obtained calendar entries (As shown in step S318, an affirmative response to this inquiry results in the creation of an album whose title is the title of the calendar event corresponding to the match, [0036]).*

Nakamura does not disclose assigning meta-information obtained from said context information and said membership grade value to said user provided information, said membership grade value defining a measure which allows to estimate a reliability of a timely relatedness for retrieval; storing said user provided information and said meta-information in a history storage in order to establish an information history functionality, and wherein said meta-information is employable for retrieval of said user provided information by matching request information of a retrieval request with said meta-information for selecting a user provided information assigned to said meta-information matched to said request information.

However, Andrews discloses:

assigning meta-information obtained from said context information and said membership grade value to said user provided information (*the data collection table 315C is a table organized as a series of columns and rows. Each row defines a record for a particular appointment. The columns include an appointment column 502A, an alarm lead time column 502B, a calendar event column 502C, a GPS departure location column 502D, a GPS arrival location 502E, an arrival time column 502F and a stress factor column 502G. Each entry under the appointment column 502A contains an appointment number by which the particular appointment for that record can be identified, [0042]*), said membership grade value defining a measure which allows to estimate a reliability of a timely relatedness for retrieval (*stress factor in Figure 5*); and

storing said user provided information and said meta-information in a history storage in order to establish an information history functionality (*Referring now to Figure 7, a summary view 315B of the history data is shown. In this view, the history data contained in the history data structure 315 has been sorted into two columns 702 and 704. Lead times and current GPS locations are contained in the history data structure among with other attributes, [0047]*).

It would have been obvious to an ordinary person skilled in the art at the time of the invention was made to incorporate the teachings of Andrews with the teachings of Nakamura for the purpose of notifying a user of an appointment by estimating a travel time for the user to travel from a current location of the wireless device to a appointment location ([Abstract] of Andrews).

Nakamura, as modified by Andrews, does not disclose wherein said meta-information is employable for retrieval of said user provided information by matching request information of a retrieval request with said meta-information for selecting a user provided information assigned to said meta-information matched to said request information.

However, Brechner discloses:

wherein said meta-information is employable for retrieval of said user provided information by matching request information of a retrieval request with said meta-information for selecting a user provided information assigned to said meta-information matched to said request information (*the user could also specifically identify digital photographs relating to beach scenes by searching for metadata that include the word "beach" within the meta data associated with each of the files included within the collection hierarchy stored in the user's content database*, [Column 11, Lines 11-23]).

It would have been obvious to an ordinary person skilled in the art at the time of the invention was made to incorporate the teachings of Brechner with the teachings of Nakamura, as modified by Andrews, for the purpose of automating the indexing of media content in a simplified hierarchical storage scheme and the automated assignment of keywords and other metadata to the media content to facilitate its retrieval ([Column 1, Lines 5-10] of Brechner).

Regarding **claim 37**, Brechner further discloses:

a component (*Figure 1*) for obtaining user provided audio information and additional user provided information (*a user might store a digital photograph file "beach1.jpg" that was taken with an OLYMPUS™ digital camera on the beach during a vacation to Hawaii in 1999 in a folder having a path such as "C:/My Documents/My Photo/Digital Camera/Olympus/Vacations+Hawaii1999Beach1.jpg."* This path would be parsed by the Clip Organizer software to identify keywords for inclusion in the metadata for the file. These keywords would include: "My Documents," "My Photos," "Digital Camera," "Olympus," "Vacations," "Hawaii," and "1999.", [Column 10, Lines 47-57]);

a component (*Figure 1*) for recording said user provided audio information (*before the sound/media files were stored on a computer's hard drive, it is inherent that the files had been recorded/downloaded/transferred from other sources*, [Column 1, Lines 13-16]);

a storage component for storing said user provided audio information (*hard drive*, [Column 1, Lines 13-16]);

a component (*Figure 1*) for obtaining context information in parallel to said user provided audio information, said context information comprising user input information generated in consequence on a user action against said mobile terminal device (*a user might store a digital photograph file "beach1.jpg" that was taken with an OLYMPUS™ digital camera on the beach during a vacation to*

Art Unit: 2165

*Hawaii in 1999 in a folder having a path such as "C:/My Documents/My Photo/Digital Camera/Olympus/Vacations+Hawaii1999Beach1.jpg." This path would be parsed by the Clip Organizer software to identify keywords for inclusion in the metadata for the file. These keywords would include: "My Documents," "My Photos," "Digital Camera," "Olympus," "Vacations," "Hawaii," and "1999.", [Column 10, Lines 47-57]); and*

*a component (Figure 1) for generating meta-information comprising information about said additional user provided information and said context information (as the content is being imported into database created by the Clip Organizer, it simultaneously indexed the contents by adding keywords or metadata based upon contextual information, [Column 6, Lines 6-11]).*

Regarding **claim 41**, Nakamura further discloses said membership grade value indicates said timely relatedness between said user provided information and one of said matching calendar entries (*where two events are scheduled on the calendar for the same date, and the calendar schedules events by date and time, the comparing step compares the time the image was recorded (meta data), if available, against the time of each of the calendar events on that date, and determines a location for the image accordingly, [0034]*)



Art Unit: 2165

8. **Claims 10, and 15-16** are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakamura et al. (*Pub. No. US 2004/0201740, filed on March 15, 2002; hereinafter Nakamura*) in view of Andrews et al. (*Pub. No. US 2003/0060979, filed on September 21, 2001; hereinafter Andrews*), in view of Brechner et al. (*Pat. No. US 6,741,996, filed on April 18, 2001; hereinafter Brechner*), and further in view of Gupta et al. (*Pat. No. US 6,484,156, filed on September 15, 1999; hereinafter Gupta*).

Regarding **claim 10**, Nakamura, as modified by Andrews and Brechner, does not disclose in case said first period of time exceeds said second period of time: sectioning said user provided information into at least two information sections, one of said at least two information sections fitting with said second period of time, said one fitting information section being matched.

However, Gupta discloses in case said first period of time exceeds said second period of time (*Figure 10 shows a target file is being divided into multiple segments, each segment has a corresponding play time, [Column 8, Lines 10-23]*):

sectioning said user provided information into at least two information sections, one of said at least two information sections fitting with said second period of time, said one fitting information section being matched (*Figure 10 shows if the search time from 000:04:08.262 to 000:11:00.14 matches a segment, that segment will be retrieved when the 'Play' button is pressed. See further Figure 4 for all searchable fields in an annotation entry*).

It would have been obvious to a person with ordinary skills in the art at the time of the invention was made to incorporate the teachings of Gupta with the teachings of Nakamura, as modified by Andrews and Brechner, for the purpose of providing easy access to different multimedia streams by using a group identifier to identify all of the multimedia streams and their corresponding annotations ([Column 2, Lines 34-46] of Gupta).

Regarding **claim 15**, Gupta further discloses a recording context information at least including:

information and time information about said user provided audio information (*Figure 4, see Time Range #184*);

time information about said user input information *Figure 4, see Creation Time #188*; and

information about said additional user provided information being associated with the user provided audio information (*Figure 5 shows the annotation entry used to associate with the media*).

Regarding **claim 16**, Gupta further discloses said generating of said recording context information comprises:

encoding said meta-information as a document being encoded in accordance with a markup language (*communication between client 15 and server 10 is performed via HTTP, using commands encoded as Uniform Resource Locators (URLs) and data formatted as object linking and embedding*

Art Unit: 2165

*(OLE) structured storage documents, or alternatively using Extensible Markup Language (XML), [Column 6, Lines 9-15]).*

9. **Claim 14** is rejected under 35 U.S.C. 103(a) as being unpatentable over Nakamura et al. (*Pub. No. US 2004/0201740, filed on March 15, 2002; hereinafter Nakamura*) in view of Andrews et al. (*Pub. No. US 2003/0060979, filed on September 21, 2001; hereinafter Andrews*), and further in view of Brechner et al. (*Pat. No. US 6,741,996, filed on April 18, 2001; hereinafter Brechner*), and further in view of Asazu (*Pub. No. 2001/0049691, published on December 6, 2001*).

Regarding **claim 14**, Nakamura, as modified by Andrews and Brechner, further discloses said user input information comprises control signals related to said recording of said user provided audio information, further comprises:

on receiving a keyword signal: initiating a recording of a user provided audio keyword information including keywords relating to said user provided audio information (*the file suffix is added as a keyword in the metadata for the file in a block 180. The suffix is the media file extension, such as "wav" for audio files in the wave format, [Column 10, Lines 32-44] of Brechner*);

Asazu then discloses:

on receiving a start signal: initiating said recording and storing of said user provided audio information (*The following processing is executed in response to the query #2. Firstly, the QT plug-in component 14 calls a function of start ( ) to the recorder 25 to issue an instruction to start recording of media data.*

Art Unit: 2165

*Subsequently, the recorder 25 notifies the logger 24 of the instruction to start recording of media data, [0068]);*

*on receiving an attach signal: associating additional information with said user provided audio information (In this case, the recorder 25 calls a function of notify ( ) to the recording manager 26 whenever each frame is processed. The recording manager 26 activates the DA plug-in component 15 registered by the system in advance per frame data. Each DA plug-in component 15 executes an analysis of frame data to create meta-data, [0068]);*

*on receiving a pause signal: pausing said recording and storing of said user provided audio information (The following processing is executed in response to the query #3. The QT plug-in component 14 calls a function of stop ( ) to the recorder 25 to issue an instruction to stop recording of media data. The recorder 25 stops recording of media data, while notifying the logger 25 that recording of media data is stopped, [0069]);*

*on receiving a continue signal: resuming said recording and storing of said user provided audio information subsequently to said pausing of said recording and storing (the processing for acquiring the information relating to meta-data is interrupted for the duration of the above access until the end of the other transaction. Thereafter, the QT plug-in component 14 resumes the processing to acquire the information relating to the required meta-data, [0078]. It is also very well-known in the art that resuming a paused recording part would start at the pausing point like in a digital voice recorder); and*

on receiving a stop signal: stopping said recording and storing of said user provided audio information and generating said recording context information  
*(The QT plug-in component 14 calls a function of commit ( ) to the recorder 25, resulting in completion of recording of media data. It is to be understood that calling a function of abort ( ) instead of the function of commit ( ) aborts all the media data and meta-data recorded or created in this session after calling of the function of start ( ), and the system is restored to its original state, [0069]).*

It would have been obvious to a person with ordinary skills in the art at the time of the invention was made to incorporate the teachings of Asazu with the teachings of Nakamura, as modified by Andrews and Brechner, for the purpose of providing media data management functions including replaying, readout, recording, deletion and synthesis of media data by the use of meta-data ([0013] and Abstract of Asazu).

10. **Claims 18, 23, 32, and 38** are rejected under 35 U.S.C. 103(a) as being unpatentable Andrews et al. (Pub. No. US 2003/0060979, filed on September 21, 2001; hereinafter Andrews) in view of Brechner et al. (Pat. No. US 6,741,996, filed on April 18, 2001; hereinafter Brechner), further in view of LaDue (Pub. No. US 2003/0133423, filed on November 15, 2002) and further in view of Tecu et al. (Pub. No. US 2004/0034655, filed on July 17, 2002; hereinafter Tecu).

Regarding **claim 18**, Andrews clearly shows and discloses a method ([Abstract]) comprising:

obtaining user provided information in consequence to any user operation on a mobile terminal device (*Image capture device, such as a digital camera or a digital video camera 23, captures original images, [0021]*);

obtaining context information associated with said user provided information, wherein said context information is related to at least one current condition of the mobile terminal device at the time of said any user operation (*Image metadata is essentially non-picture information that is stored along with picture information in a file and can include information such as the date and time the picture was taken, whether a flash was used, which camera model was used, camera settings such as zoom and exposure, location information such as GPS-derived data, and audio annotations, [0025]*); and

storing said user provided information with coded meta-information in a history storage in order to establish an information history functionality (*Referring now to Figure 7, a summary view 315B of the history data is shown. In this view, the history data contained in the history data structure 315 has been sorted into two columns 702 and 704. Lead times and current GPS locations are contained in the history data structure among with other attributes, [0047]*).

Andrews does not explicitly disclose wherein said meta-information is employable for retrieval of said user provided information by matching request information of a retrieval request with said meta-information for selecting a user

Art Unit: 2165

provided information assigned to said meta-information matched to said request information.

However, Brechner discloses:

wherein said meta-information is employable for retrieval of said user provided information by matching request information of a retrieval request with said meta-information for selecting a user provided information assigned to said meta-information matched to said request information (*the user could also specifically identify digital photographs relating to beach scenes by searching for metadata that include the word "beach" within the meta data associated with each of the files included within the collection hierarchy stored in the user's content database, [Column 11, Lines 11-23]*).

It would have been obvious to an ordinary person skilled in the art at the time of the invention was made to incorporate the teachings of Brechner with the teachings of Andrews for the purpose of automating the indexing of media content in a simplified hierarchical storage scheme and the automated assignment of keywords and other metadata to the media content to facilitate its retrieval ([Column 1, Lines 5-10] of Brechner).

LaDue then discloses:

providing code basis representing a plurality of coding symbols, said code basis comprising a pre-defined number of pre-defined frequencies, wherein a plurality of coding symbols represents a character and symbol code table employable for coding said meta-information (*Figure 3 depicts a set of*

Art Unit: 2165

*fundamental semantic constructs specific to OPD, 76, theory and practice. For example, octave pulse values can be expressed in numeric characters arranged in an absolute progression, 77. Each numeric character, 83, has a corresponding harmonic octave value attribute, 84, [0115]), wherein said set of code basis is defined within a first frequency range, which is one frequency range of a plurality of frequency ranges forming a total frequency range being applicable to said user provided audio information (Figure 3 depicts the basic conceptual constructs of octave pulse data, 76. The musical harmonic value, 81a-b and 84, of each depicted octave pulse construct and each corresponding alpha numeric character, 77, 78 and 79, are all depicted, [0221]);*

*repeating said code basis within at least one further frequency range out of said plurality of frequency ranges (Octave pulses that are transported within PCM signal constructs must contend with noisy switch exchanges and E1/T1 repeaters while traveling through selected PLMN and PSTN networks. The invention creates a "harmonic paradox", as discussed in Figure 18, [0144]).*

It would have been obvious to a person with ordinary skills in the art at the time of the invention was made to incorporate the teachings of LaDue with the teachings of Andrews, as modified by Brechner, for the purpose of sending data communications over wireless digital voice communications networks which transmit voice communications in voice frames, each of which contains a digitized segment of a voice communication in a voice frame format ([Abstract] of LaDue).



Tecu then discloses:

coding said meta-information in accordance with said code basis defined within said first frequency range and repeated within said at least one further frequency range to obtain redundancy (*At step 116, encoder routine 26 designates metadata 40 to be encoded at each of the selected frequencies 62. For example, each type of metadata 40 to be included in the particular data stream 32 may be encoded at each of a plurality of designated frequencies 62, [0028]. Encoder routine 26 may encode metadata 40 by generating a bit pattern at one or more desired inaudible frequencies 62, [0022]; and*

combining said user provided audio information and said coded meta-information by embedding said coded meta-information into said user provided audio information (*metadata 40 may be encoded at a frequency 62 of approximately 20 kHz or greater, thereby rendering the encoded metadata 40 inaudible to human hearing. If data stream 32 is to be compressed, the encoded metadata 40 may be inserted into audio data 34 either before or after compression, thereby providing additional functionality and versatility to system 10, [0019].*

It would have been obvious to a person with ordinary skills in the art at the time of the invention was made to incorporate the teachings of LaDue with the teachings of Andrews, as modified by Brechner and Tecu, for the purpose of encoding metadata at a plurality of predetermined intensity levels at a human-inaudible frequency and populating the audio data of the data stream with the

Art Unit: 2165

encoded metadata using an encoder routine accessible by the processor ([0003] of Tecu).

Regarding **claim 23**, Tecu further discloses a method for extracting meta-information from an audio information having embedded said meta-information, said method comprising:

providing a correlation basis comprising each frequency being included in a set of code bases representing a plurality of coding symbols (*Figure 1, frequency data 60*), said coding symbols being employed for coding said meta-information (*relational data 50 may be generated after decoding of metadata 40 by decoder routine 28, or relational data 50 may be generated upon encoding or insertion of metadata 40 into a particular data stream 32, [0021]*); and

applying said correlation basis onto said user provided audio information having embedded said meta-information to extract said meta-information (*Processor 16 also generates relational data 50 corresponding to the encoded metadata 40 such that metadata 40 may be correlated to particular data streams 32, [0021]*);

wherein said extracted meta-information being available for retrieval (*search engine 20 may be used to quickly and efficiently locate a particular data stream 32 using search parameters corresponding to metadata 4, [0021]*).

Regarding **claim 32**, Andrews clearly shows and discloses a computer readable storage medium embedded with a computer program comprising programming code for carrying out the operations of **claim 18** (*Figure 3*).

Regarding **claim 38**, Andrews clearly shows and discloses an apparatus (*Figure 3*) comprising:

a component for obtaining user provided information in consequence to any user operation on a mobile terminal device (*Image capture device, such as a digital camera or a digital video camera 23, captures original images, [0021]*);

a component for obtaining context information associated with said user provided information, wherein said context information is related to at least one current condition of the mobile terminal device at the time of said any user operation (*Image metadata is essentially non-picture information that is stored along with picture information in a file and can include information such as the date and time the picture was taken, whether a flash was used, which camera model was used, camera settings such as zoom and exposure, location information such as GPS- derived data, and audio annotations, [0025]*); and

a storage component for storing said user provided information with coded meta-information in a history storage in order to establish an information history functionality (*Referring now to Figure 7, a summary view 315B of the history data is shown. In this view, the history data contained in the history data structure 315 has been sorted into two columns 702 and 704. Lead times and current GPS*

Art Unit: 2165

*locations are contained in the history data structure among with other attributes, [0047]).*

Andrews does not explicitly disclose wherein said meta-information is employable for retrieval of said user provided information by matching request information of a retrieval request with said meta-information for selecting a user provided information assigned to said meta-information matched to said request information.

However, Brechner discloses:

wherein said meta-information is employable for retrieval of said user provided information by matching request information of a retrieval request with said meta-information for selecting a user provided information assigned to said meta-information matched to said request information (*the user could also specifically identify digital photographs relating to beach scenes by searching for metadata that include the word "beach" within the meta data associated with each of the files included within the collection hierarchy stored in the user's content database, [Column 11, Lines 11-23]*).

It would have been obvious to an ordinary person skilled in the art at the time of the invention was made to incorporate the teachings of Brechner with the teachings of Andrews for the purpose of automating the indexing of media content in a simplified hierarchical storage scheme and the automated assignment of keywords and other metadata to the media content to facilitate its retrieval ([Column 1, Lines 5-10] of Brechner).

LaDue then discloses:

providing code basis representing a plurality of coding symbols, said code basis comprising a pre-defined number of pre-defined frequencies, wherein a plurality of coding symbols represents a character and symbol code table employable for coding said meta-information (*Figure 3 depicts a set of fundamental semantic constructs specific to OPD, 76, theory and practice. For example, octave pulse values can be expressed in numeric characters arranged in an absolute progression, 77. Each numeric character, 83, has a corresponding harmonic octave value attribute, 84, [0115]*), wherein said set of code basis is defined within a first frequency range, which is one frequency range of a plurality of frequency ranges forming a total frequency range being applicable to said user provided audio information (*Figure 3 depicts the basic conceptual constructs of octave pulse data, 76. The musical harmonic value, 81a-b and 84, of each depicted octave pulse construct and each corresponding alpha numeric character, 77, 78 and 79, are all depicted, [0221]*);

repeating said code basis within at least one further frequency range out of said plurality of frequency ranges (*Octave pulses that are transported within PCM signal constructs must contend with noisy switch exchanges and E1/T1 repeaters while traveling through selected PLMN and PSTN networks. The invention creates a "harmonic paradox", as discussed in Figure 18, [0144]*).

It would have been obvious to a person with ordinary skills in the art at the time of the invention was made to incorporate the teachings of LaDue with the

teachings of Andrews, as modified by Brechner, for the purpose of sending data communications over wireless digital voice communications networks which transmit voice communications in voice frames, each of which contains a digitized segment of a voice communication in a voice frame format ([Abstract] of LaDue).

Tecu then discloses:

coding said meta-information in accordance with said code basis defined within said first frequency range and repeated within said at least one further frequency range to obtain redundancy (*At step 116, encoder routine 26 designates metadata 40 to be encoded at each of the selected frequencies 62. For example, each type of metadata 40 to be included in the particular data stream 32 may be encoded at each of a plurality of designated frequencies 62, [0028]. Encoder routine 26 may encode metadata 40 by generating a bit pattern at one or more desired inaudible frequencies 62, [0022]; and*

combining said user provided audio information and said coded meta-information by embedding said coded meta-information into said user provided audio information (*metadata 40 may be encoded at a frequency 62 of approximately 20 kHz or greater, thereby rendering the encoded metadata 40 inaudible to human hearing. If data stream 32 is to be compressed, the encoded metadata 40 may be inserted into audio data 34 either before or after compression, thereby providing additional functionality and versatility to system 10, [0019].*

It would have been obvious to a person with ordinary skills in the art at the time of the invention was made to incorporate the teachings of LaDue with the teachings of Andrews, as modified by Brechner and Tecu, for the purpose of encoding metadata at a plurality of predetermined intensity levels at a human-inaudible frequency and populating the audio data of the data stream with the encoded metadata using an encoder routine accessible by the processor ([0003] of Tecu).

11. **Claims 19, 21-22, 24, and 26** are rejected under 35 U.S.C. 103(a) as being unpatentable over Andrews et al. (*Pub. No. US 2003/0060979, filed on September 21, 2001; hereinafter Andrews*) in view of Brechner et al. (*Pat. No. US 6,741,996, filed on April 18, 2001; hereinafter Brechner*), further in view of LaDue (*Pub. No. US 2003/0133423, filed on November 15, 2002*) and further in view of Tecu et al. (*Pub. No. US 2004/0034655, filed on July 17, 2002; hereinafter Tecu*), and further in view of Tsuruoka (*Pat. No. US 6,192,056, published on February 20, 2001*).

Regarding **claim 19**, Tecu discloses said combining comprises:

obtaining a modulation signal from said coded meta-information (*intensity data 70 having information associated with encoded metadata 40. For example, in the illustrated embodiment, intensity data 70 comprises signal amplitude or intensity levels 72 used to encode metadata 40 such that various intensity levels*

Art Unit: 2165

72 may be used to designate a particular bit pattern of information, [0017] of Tecu).

Andrews, as modified by Brechner, LaDue and Tecu, does not disclose the other limitations.

However, Tsuruoka discloses:

obtaining a modulated signal by combining said user provided audio information and said modulation signal in a frequency domain (*a modulated signal using a multiplicity of carriers whose frequency components are in an orthogonal relationship with one another, encodes data such as audio data or the like, and the encoded data are allocated to each carrier, thereby modulating each carrier, a digital signal in the frequency domain comprised of each modulated carrier is inverse fast Fourier transformed into a digital signal in a time domain,* [Column 1, Lines 23-31]); and

obtaining said user provided audio information having embedded said meta-information by combining said modulated signal with said user provided audio information in a time domain (*On its demodulating side, by A/D converting such an OFDM modulated signal and then applying the fast Fourier transform to the A/D converted signal, the encoded data allocated to each carrier is obtained,* [Column 1, Lines 28-31]).

It would have been obvious to a person with ordinary skills in the art at the time of the invention was made to incorporate the teachings of Tsuruoka with the



Art Unit: 2165

teachings of Andrews, as modified by Brechner, LaDue, and Tecu, for the purpose of demodulating a digital orthogonal frequency division multiplex modulated signal in which an information signal modulates a plurality of carriers whose frequency components are in an orthogonal relationship with one another using OFDM (Orthogonal Frequency Division Multiplex) modulation ([Column 1, Lines 14-22] of Tsuruoka).

Regarding **claim 21**, Tsuruoka further discloses said obtaining of said modulated signal comprises:

obtaining said modulated signal by multiplying said user provided audio information and said modulation signal in said frequency domain (*a modulated signal using a multiplicity of carriers whose frequency components are in an orthogonal relationship with one another; encodes data such as audio data or the like, and the encoded data are allocated to each carrier, thereby modulating each carrier; a digital signal in the frequency domain comprised of each modulated carrier is inverse fast Fourier transformed into a digital signal in a time domain*, [Column 1, Lines 23-31]).

Regarding **claim 22**, Tsuruoka further discloses:

obtaining said user provided audio information having embedded said meta-information by adding said modulation signal and said user provided audio information in said time domain (*On its demodulating side, by A/D converting such an OFDM modulated signal and then applying the fast Fourier transform to*

Art Unit: 2165

*the A/D converted signal, the encoded data allocated to each carrier is obtained, [Column 1, Lines 28-31]].*

Regarding **claim 24**, Andrews, as modified by Tecu and Oxford, discloses said applying comprises:

*obtaining a modulation signal from said correlation basis (intensity data 70 having information associated with encoded metadata 40. For example, in the illustrated embodiment, intensity data 70 comprises signal amplitude or intensity levels 72 used to encode metadata 40 such that various intensity levels 72 may be used to designate a particular bit pattern of information, [0017] of Tecu);*

*extracting magnitude signal values from said correlation signal (intensity data 70 comprises signal amplitude or intensity levels 72 used to encode metadata 40 such that various intensity levels 72 may be used to designate a particular bit pattern of information, [0017] of Tecu), said magnitude signal values corresponding to each code basis of said set of code bases (encode metadata at a plurality of predetermined intensity levels at a human-inaudible frequency and populate the audio data of the data stream with the encoded metadata, [0003] of Tecu); and*

*evaluating said magnitude signal values to retrieve said meta-information from said user provided audio information (various intensity ranges 74 may also be used to designate a particular bit pattern of information. For example, a particular range of signal level strengths may be used to identify a bit designation*

Art Unit: 2165

of "1" while another range of signal level strengths may be used to identify a bit designation of "0", [0017] of Tecu).

Tsuruoka discloses:

obtaining a correlation signal from said user provided audio information by convoluting said modulation signal and said user provided audio information having embedded said meta-information in a frequency domain (*a modulated signal using a multiplicity of carriers whose frequency components are in an orthogonal relationship with one another, encodes data such as audio data or the like, and the encoded data are allocated to each carrier, thereby modulating each carrier, a digital signal in the frequency domain comprised of each modulated carrier is inverse fast Fourier transformed into a digital signal in a time domain,* [Column 1, Lines 23-31]).

Regarding **claim 26**, Andrews, as modified by Tecu and Oxford, discloses said correlation basis being defined in a first frequency range (*frequency data 60 in Figure 1, range is 20kHz or greater to render inaudible to human hearing,* [0019] of Tecu) and said obtaining of said correlation signal comprises :

providing a correlation basis comprising all frequencies of said set of code bases within a first frequency range of a plurality of frequency ranges (*frequency data 60 in Figure 1, range is 20kHz or greater to render inaudible to human hearing,* [0019] of Tecu);

mapping said correlation basis into each frequency range of a plurality of frequency ranges, said plurality of frequency ranges forming a total frequency range being applicable to said user provided audio information to obtain said modulation signal (*Processor 16 also generates relational data 50 corresponding to the encoded metadata 40 such that metadata 40 may be correlated to particular data streams 32, [0021] of Tecu*); and

Tsuruoka discloses:

obtaining said correlation signal from said user provided audio information by convoluting said modulation signal and said user provided audio information in said frequency domain (*a modulated signal using a multiplicity of carriers whose frequency components are in an orthogonal relationship with one another, encodes data such as audio data or the like, and the encoded data are allocated to each carrier, thereby modulating each carrier, a digital signal in the frequency domain comprised of each modulated carrier is inverse fast Fourier transformed into a digital signal in a time domain, [Column 1, Lines 23-31]*).

12. **Claim 25** is rejected under 35 U.S.C. 103(a) as being unpatentable over Andrews et al. (*Pub. No. US 2003/0060979, filed on September 21, 2001; hereinafter Andrews*) in view of Brechner et al. (*Pat. No. US 6,741,996, filed on April 18, 2001; hereinafter Brechner*), further in view of LaDue (*Pub. No. US 2003/0133423, filed on November 15, 2002*) and further in view of Tecu et al. (*Pub. No. US 2004/0034655, filed on July 17, 2002; hereinafter Tecu*), and

Art Unit: 2165

further in view of Tsuruoka (*Pat. No. US 6,192,056, published on February 20, 2001*), and further in view of Levy et al. (*Pub. No. US 2002/0031240, filed on December 6, 2000; hereinafter Levy*).

Regarding **claim 25**, Tecu further discloses extracting metadata using a magnitude value (*various intensity ranges 74 may also be used to designate a particular bit pattern of information. For example, a particular range of signal level strengths may be used to identify a bit designation of "1" while another range of signal level strengths may be used to identify a bit designation of "0", [0017] of Tecu*).

Andrews, as modified by Brechner, LaDue, Tecu, and Tsuruoka, does not disclose the first two limitations.

However, Levy discloses:

obtaining magnitude ratio values of each pair of said magnitude signal values (*For each of the M selected coefficients, x, the embedder computes a ratio of the magnitude of a selected coefficient relative to the magnitude of its neighbors (108). In particular, it is a ratio of the magnitude of the selected coefficient to the average magnitude of the surrounding neighbors, [0013]*);

normalizing said magnitude ratio values (*The embedding and detecting operations apply to other media types, including audio media signals. In addition, the frequency domain coefficients may be selected and adjusted to reference*

*values to detect other types of signal alteration, such as lossy compression, digital to analog and analog to digital conversion, downsampling and upsampling, etc, [0031]); and*

It would have been obvious to a person with ordinary skills in the art at the time of the invention was made to incorporate the teachings of Levy with the teachings of Andrews, as modified by Brechner, LaDue, Tecu, and Tsuruoka, for the purpose of detecting and analyzing alteration of a watermarked media signal that contains data information by examining signal peaks at selected frequency coefficients in the media signal ([0008] of Levy).

13. **Claim 40** is rejected under 35 U.S.C. 103(a) as being unpatentable over Nakamura et al. (Pub. No. US 2004/0201740, filed on March 15, 2002; hereinafter Nakamura) in view of Andrews et al. (Pub. No. US 2003/0060979, filed on September 21, 2001; hereinafter Andrews), and further in view of Brechner et al. (Pat. No. US 6,741,996, filed on April 18, 2001; hereinafter Brechner), and further in view of Kometani et al. (Pat. No. US 5,805,773, published on September 8, 1998; hereinafter Kometani).

Regarding **claim 40**, Nakamura, as modified by Andrews and Brechner, does not explicitly disclose the limitation of this instant claim.

However, Kometani discloses deriving said membership grade value further comprises at least one out of averaging said membership function over

Art Unit: 2165

said first period of time, determining a maximum of said membership function over said first period of time, and determining a minimum of said membership function over said first period of time (*According to Formula (i), as shown in Figure 7, the membership functions (indicated by solid lines) of the conclusion part propositions M6, M7 and M8 of the rules R1, R2 and R3 are respectively weighted by the condition part membership grades 0.4, 0.9 and 0.3 into the curves of the fuzzy-rule membership grades (indicated by broken lines)*), [Column 5, Lines 56-62]).

It would have been obvious to a person with ordinary skills in the art at the time of the invention was made to incorporate the teachings of Levy with the teachings of Andrews, as modified by Brechner, LaDue, Tecu, and Tsuruoka, for the purpose of selecting one fuzzy rule group and at least one fuzzy set in conformity with a situation at that time and combines them and executing the reasoning for fact information ([Abstract] of Kometani).

### **Conclusion**

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory

Art Unit: 2165

action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

### ***Contact Information***

14. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Son T. Hoang whose telephone number is (571) 270-1752. The Examiner can normally be reached on Monday – Friday (7:00 AM – 4:00 PM).

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Neveen Abel-Jalil can be reached on (571) 272-4074. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-



Art Unit: 2165

free). If you would like assistance from a USPTO Customer Service

Representative or access to the automated information system, call 800-786-

9199 (IN USA OR CANADA) or 571-272-1000.

/Son T Hoang/  
Examiner, Art Unit 2165  
July 30, 2009

/Neveen Abel-Jalil/  
Supervisory Patent Examiner, Art Unit 2165